Subject: 3D Max - inverted normals
Posted by ANIMEMI on Thu, 02 Apr 2009 17:42:15 GMT
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Hi I have been trying to make an old model printable. Arrg!
My test piece uploaded easily enough. But two trys and no Joy. INVERTED NORMALS!

Q: Can rogue geometry inside the Mesh (free floating faces ect) cause a Normals problem, Or will it pick up as a Non Manifold error first.

In Max there is a normal edit modifier but it will not work Globally if you have an Editable Mesh as your object.
So is Blender an option.

Can I turn my mesh into something else export it and re-import it.

Sifting through every poly just is not an option.

Thanks to anyone who can point me to a solution.

Subject: Re: 3D Max - inverted normals
Posted by virtox on Thu, 02 Apr 2009 22:02:13 GMT
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What does the STL check modifier think of your models ?
This should at least pick up any floating faces.

Subject: Re: 3D Max - inverted normals
Posted by ANIMEMI on Fri, 03 Apr 2009 01:50:25 GMT
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Hi, virtox

Ah I have to admit I know the bare essentials of 3Dmax. Well I did not know about the STL check modifier. I will have a look at the models and use it.

Q: Face normals or vertex normals. Do both matter. (I only knew about face normals, then I used

the edit normal modifier it only shows the vertex normals).

I used th STL modifier and it did find a slew of errors. Got rid of a spike. It gave me a no errors. My model still will not pass. So I must actually have inverted normals.

Thanks for the tip.

Note: 3D max 9

Subject: Re: 3D Max - inverted normals
Posted by virtox on Fri, 03 Apr 2009 11:06:49 GMT
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I think vertex normals are directly linked to the face normals and edge orientation. I never bother about these.

I don't understand the problems with the normal modifier or edit mesh ?

In an editable mesh you can select all faces, tick the show normals box, and under surface properties is a unify normals button. Both work only on selected faces.

The normal modifier should work perfectly on face normals.
Just make sure the underlying stack has no active subselection, or it will only work on those.

I just saw there is also a seperate "edit normals" as opposed to the "normals" modifier. With a different kind of vertex normal Max is such a logical app, ahum..

From the max help, always your friend :)The Edit_Normals modifier lets the user edit the normal vectors used for realtime rendering of Editable Poly objects.

So I don't think it is the tool for STL, since it pertains to rendertime polygon smoothing, which shapeways doesn't do, only in the preview java applet.

And since the unify normals seem to work only on polygons compared to its (selected) neighbours, it ususally best to have them all taken into account by selecting all.

Or if you want, I could have a look at your model.

Subject: ITS PRINTABLE!
Posted by ANIMEMI on Fri, 03 Apr 2009 14:35:38 GMT
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Yes, I/we finally got it printable. This would not been possible without your help. So many thanks.

The STL check was the thing. at first it behaved a bit eratically.
As you so kindly offered to look at the mesh I thought I ought to have one last try myself. I noticed the bounding box was much larger than the object. I think a single vertex was the cause. I removed it and the STL check behaved itself. I then corrected just over 120 errors and ..well.

BTW I was! trying to use the EDIT NORMALS modifier so that was a wrong turn, so thanks for your clarification on that.

I am glad I tested this part first I hope I can modify the rest with only a few more bumbles.